

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 January 2005 (13.01.2005)

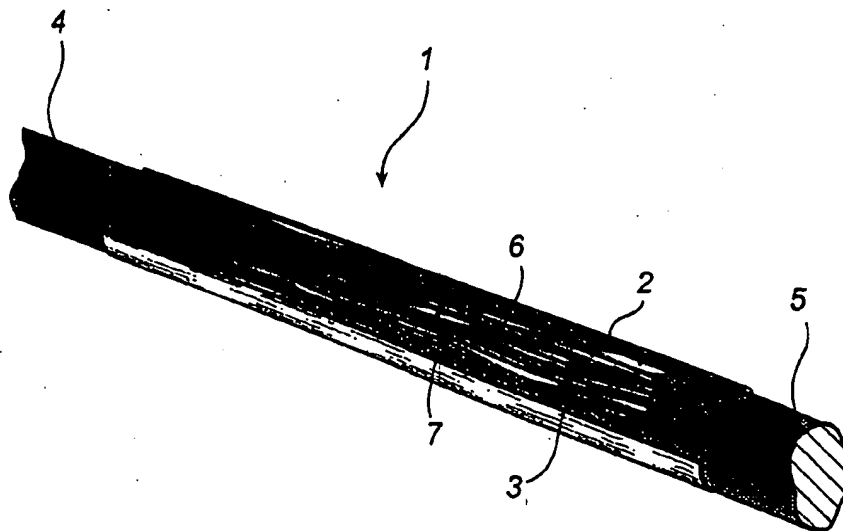
PCT

(10) International Publication Number
WO 2005/002472 A1

- (51) International Patent Classification⁷: A61F 2/04, A61L 27/58
- (74) Agent: AWAPATENT AB; P.O. Box 11394, S-404 28 Stockholm (SE).
- (21) International Application Number: PCT/SE2004/000879
- (22) International Filing Date: 7 June 2004 (07.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0301974-2 3 July 2003 (03.07.2003) SE
- (71) Applicant (for all designated States except US): ASTRA TECH AB [SE/SE]; Aminogatan 1, S-431 53 Mölndal (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): OLAUSSON, Susanne [SE/SE]; Holmenhacken 19B, S-443 38 Lerum (SE). WIBERG, Mikael [SE/SE]; Prästgården, S-870 33 Docksta (SE). RUNDLAV WESTLING, Åsa [SE/SE]; Valås Parkväg 42, S-437 32 Lindome (SE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A DEVICE FOR PROMOTING REGENERATION OF AN INJURED NERVE, A KIT AND A BIODEGRADABLE SHEET FOR PREPARING SUCH A DEVICE



(57) Abstract: The invention relates to promotion of a process for regeneration of an injured nerve using a plurality of guiding means, preferably a plurality of guiding fibres, presenting an in vivo biodegradability being such that at least a majority of said guiding means becomes essentially disintegrated by degradation (and/or dissolution) during a pre-contact period extending from application of the device at the injured nerve up to a first occurrence of a re-established (regenerated) contact between the ends of the injured nerve. During a post-contact period extending from the end of the pre-contact period and up to the end of the regeneration process, the disintegrated guiding means will provide no substantial axon growth guiding function and no substantial axon growth blocking effect.

WO 2005/002472 A1

BEST AVAILABLE COPY

**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW. ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW). Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European patent (AT, BE,

BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.